

REMARKS

The Office Action mailed December 23, 2008, has been received and the Examiner's comments carefully reviewed. Claims 1, 7, 14, and 16 have been amended, and claims 20-23 are added. Claims 1-23 are pending. No new matter has been added, and favorable reconsideration of this application is requested in view of the following remarks.

Claim Rejections - 35 USC § 112

In the Office Action, claims 1-6, 14, 15 and 16-19 have been rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement. Applicants respectfully traverse this rejection.

The Office Action indicates that the portion of claims 1, 14, and 16 reciting that the electrical to electrical converters connect to optical to electrical converters at a card edge connector “to receive a power signal” is not supported by the original disclosure. Specifically, the Office Action distinguishes receipt of power from receipt of a power signal. Applicants disagree with the Examiner’s position and this characterization of the application. Nevertheless, Applicants have amended claims 1, 14, and 16 to clarify that the connection transmits “power”, rather than “a power signal”, as referenced in the Office Action at page 4. Applicants respectfully refer to both Figure 4 (element 148) and Figure 6 (element 548) as illustrating power transmitted via the card edge connector between the converter cards. Distribution of power via the card edge connector is also described at least from page 8, line 29 through page 9, line 10 (power distributed via the card edge connector); and page 6, lines 2-5 and 23-25 (power received from backplane). Therefore, Applicants assert that there exists ample support for the claims as amended, and respectfully request reconsideration and withdrawal of this rejection of claims 1-6, 14, 15, and 16-19.

In the Office Action, claims 16-19 were also rejected under 35 U.S.C. § 112, second paragraph for being indefinite for failing to particularly point out and distinctly claim the subject matter regarded as the invention. Specifically, the Office Action referenced the limitation “via the main signal” and indicates that this limitation lacks antecedent basis. In response, Applicants

have canceled this portion of the claim. Applicants respectfully request reconsideration and withdrawal of this rejection as well.

Claim Rejections - 35 USC § 103

A. Claims 1, 3-14 and 16-19

In the Office Action, claims 1, 3-14 and 16-19 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Choy et al. (U.S. Patent No. 5,487,120) in view of Lebby et al. (U.S. Patent No. 5,218,465) and Steinman (U.S. Patent No. 6,625,033) and Carbone et al. (U.S. Patent Pub. No. 2003/0039006, hereinafter “Carbone”). Applicants respectfully traverse the rejection, and do not accede to the characterizations of the references or claims as made in the Office Action.

Independent claims 1, 7, 14, and 16 relate to methods and systems for optical system management using a wavelength division multiplexer arrangement. For example, claim 1 requires “a plurality of separate optical to electrical converters connecting to a backplane, each optical to electrical converter removably mated with the circuitry and configured to transmit and receive common format signals and operate at a separate wavelength.” Claim 1 also requires “a plurality of separate electrical to electrical converters, each directly and removably mated with one of the optical to electrical converters at a card edge connector to receive a power signal and to send and receive common format signals, each electrical to electrical converter including input and output signal locations and configured to provide conversion between native protocol media signals and the common format signals.” Claims 7, 14, and 16 have generally similar features recited in those claims. Each of independent claims 1, 7, 14, and 16 are amended in the present response to require that the backplane arranged to receive the optical to electrical converter cards of those claims includes “an identification feature configured to allow identification of an optical to electrical converter card operable at a desired wavelength.” Support for this element is found at least in the specification at page 9, lines 17-24. The amendment to each of these claims clarifies that the backplane in the wavelength division multiplexer system (WDM) can allow identification of the wavelength of operation of an inserted optical to electrical converter, and can allow those operating at an allowed wavelength to communicate via the optical channels.

Therefore, as stated in the specification, cards “at the wrong wavelength cannot be inserted into backplane 64 and used to cause system communication failures.” Page 9, lines 23-24.

In contrast to the independent claims, the combination of Choy, Lebby, Steinman, and Carbone cannot render this claim obvious, at least because none of these references discloses such an identification feature configured to allow identification of an optical to electrical converter card operable at a desired wavelength. Choy discloses a system that includes a number of Laser/Receiver Cards (LRCs) that form a portion of a WDM system. The LRCs must match on each side of the WDM communication channel (i.e. fiber link 28 of Figure 1) for proper operation. Choy requires a user to manually determine and ensure matching LRCs are placed at each side of the optical communication path, indicating that “no configuration, wiring, switch settings, or other complex operations are needed. The user must only ensure that the two IOC. . . are the same type. . . and that the associated LRCs. . . are installed and operate at the same wavelengths.” Col. 7:31-35. Choy discloses use of a physical keying process for the LRCs to order them according to channel. See col. 6:64-67. Therefore, Choy would have no need for an identification feature in a backplane connection, because the LRCs are only insertable into particular locations. Even if such identification were implemented, Choy specifically indicates that no such configuration settings are included in the system, instead relying on manual inspection. Therefore, Choy lacks the identification feature of the independent claims

Lebby, Steinman, and Carbone cannot overcome the deficiencies of Choy. None of these references suggest use of separate optical to electrical converters at different wavelengths, and therefore cannot suggest use of an identification feature as claimed.

For at least this reason, as well as the reasons set forth in the response of September 11, 2008, Applicants assert that this combination of references fails to teach or suggest each of the elements of the independent claims. Applicants therefore respectfully request reconsideration and withdrawal of the rejection of claims 1, 7, 14, and 16, as well as claims 3-6, 8-13, and 17-19 which each depend (directly or indirectly) from one of those independent claims.

B. Claim 2

The Office Action rejected claim 2 under 35 U.S.C. § 103(a) as being unpatentable over the above-cited references, and further in view of Oberg et al. (U.S. Patent Application No. 2005/0084262). Applicants respectfully traverse this rejection.

Claim 2 depends from claim 1, and inherits each of the elements of that claim. Therefore, claim 2 also requires the presence of an identification feature configured to allow identification of an optical to electrical converter card operable at a desired wavelength. As explained above, none of Choy, Lebby, Steinman, and Carbone disclose this element. Oberg also fails to disclose this element. Oberg relates to use of transmission codes for data communication separating communication nodes according to high and low priority communications, but does not suggest use of separate optical to electrical converters at different wavelengths in the manner claimed. Oberg therefore cannot suggest use of an identification feature for such optical to electrical converters, and cannot overcome the deficiencies of Choy, Lebby, Steinman, and Carbone.

For at least this reason, Applicants respectfully request reconsideration and withdrawal of the rejection of claim 2.

C. Claim 15

The Office Action rejected claim 15 under 35 U.S.C. § 103(a) as being unpatentable over the above-cited references, and further in view of de Lind van Wijngaarden (U.S. Patent No. 6,241,778). Applicants respectfully traverse this rejection.

Claim 15 depends from claim 14, and inherits each of the elements of that claim. Therefore, claim 15 also requires the presence of an identification feature configured to allow identification of an optical to electrical converter card operable at a desired wavelength. As explained above, none of Choy, Lebby, Steinman, and Carbone disclose this element. de Lind van Wijngaarden also fails to disclose this element. de Lind van Wijngaarden relates to data communication formats, but does not suggest use of separate optical to electrical converters at different wavelengths in the manner claimed. de Lind van Wijngaarden therefore cannot suggest

use of an identification feature for such optical to electrical converters, and cannot overcome the deficiencies of Choy, Lebby, Steinman, and Carbone.

For at least this reason, Applicants respectfully request reconsideration and withdrawal of the rejection of claim 15.

New Claims

Claims 20-23 are added in the present response, and recite a CPU card included in the system that is configured to send command and control signals to each of the claimed optical to electrical converters and electrical to electrical converters, and is also configured to communicate with a far-end WDM system. Support for these claims can at least be found at page 8, lines 8-14 of the present application. These claims are allowable at least due to their dependence upon allowable independent claims, as explained above, as well as the requirement that the CPU card be configured to communicate with a remote or far end WDM system, which is not disclosed in the cited prior art references. Applicants therefore respectfully request allowance of these claims as well.

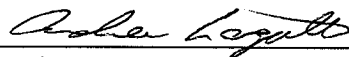
Conclusion

It is respectfully submitted that each of the presently pending claims is in condition for allowance and notification to that effect is requested. Although certain arguments regarding patentability are set forth herein, there may be other arguments and reasons why the claimed invention is patentably distinct. Applicant reserves the right to raise these arguments in the future. The Examiner is invited to contact Applicant's representative at the below-listed telephone number if it is believed that the prosecution of this application may be assisted thereby.

Respectfully submitted,

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